ABSTRACT OF THE DISCLOSURE

A wiring of silicon is formed on a surface of a semiconductor substrate. Part of the wiring is covered with a resist pattern. Ion implantation is conducted on the substrate using the resist pattern as a mask and then the resist pattern is removed. An upper section of the wiring with a thickness of at least 5 nm is removed to minimize thickness of the wiring. Reaction is caused between a surface section of the wiring of which thickness is thus reduced and a metal which reacts with silicon to form silicide to thereby form a metal silicide film on a surface of the wiring. Resistance of the wiring can be reduced with good reproducibility.